

AMENDMENTS TO THE SPECIFICATION

Please replace the 1st paragraph on page 1 (paragraph [0001]) starting with "This application is related to" with the following amended paragraph:

This application is related to United States Patent Application Serial No. 10/763,129 ~~<xxx>~~ entitled "IMAGE CLASSIFICATION USING CONCENTRATION RATIO," filed January 22, 2004, and assigned to the assignee of the present application.

Please replace the last paragraph on page 14 (paragraph [0065]) starting with "Fig. 12 illustrates a processing procedure" with the following amended paragraph:

[0065] Fig. 12 illustrates a processing procedure that may be implemented by the classification processor 152. The processor 152 may first retrieve an image (for example from memory or from an image capture device such as a scanner or digital camera), as shown at step 160. Once the image has been obtained, the classification processor retrieves one or more classification thresholds (such as the thresholds T and P, which may, for example, be stored in memory) at step 162. Once the desired thresholds are obtained, the classification processor 152 determines the CR (at step 164) for the image obtained at step 160. At step 166, the classification processor 166 compares the CR to the one or more thresholds of interest. In general, it is preferable that use of the three thresholds discussed be implemented, but one, two, three, or more thresholds could be used depending on the level of classification needed. For example, if it is desired to know only whether an image is a text image or not, than only a single threshold is needed. Likewise, if it is desired to classify images into four classes, for example, text, graphic, photographic night and photographic day, three thresholds may be determined using the training procedure noted above and applied in the classification processor 152. Finally, an image type is returned (step 168).

Please replace the 2nd paragraph on page 15 (paragraph [0066]) starting with "The process of determining the CR for an image" with the following amended paragraph:

[0066] The process of determining the CR for an image being analyzed in the process outlined in Fig. 12 is shown in additional detail in Fig. 13. As shown at step 175, the image of interest is processed. First, the luminance or gray scale components of the pixels are determined, as shown at step 177. Then, the histogram, or more specifically, the histogram bins are initialized to zero, as shown at step 179. Next, the histogram is populated (step 181). Steps 177, 179, and 181 may be implemented using known histogram tools and techniques, including the ones discussed above. Once the histogram is determined, the CR for the image may be determined using Equation 3 or 4, including the possible variants thereof as discussed herein (step 183). Finally, in the embodiment shown the CR may be returned (Step 185) to the main process illustrated in Fig 12. As should be apparent, the processes shown in Figs. 12 and 13 could be implemented in a variety of procedural languages using functions and procedures and parameter passing. Object-oriented techniques could also be used, implementing the processes in Figs. 12 and 13 as one or more methods.